09/701,013

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=> D HIS

     (FILE 'HOME' ENTERED AT 19:20:45 ON 02 DEC 2003)

     FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH' ENTERED AT 19:20:58 ON 02 DEC
     2003
L1        846429 S PLASMID OR VECTOR
L2        115648 S (CITRIC OR TARTARIC)(W)ACID
L3            20 S L1(10A)L2
L4            17 DUP REM L3 (3 DUPLICATES REMOVED)

=> D BIB AB 1-17 L4

L4   ANSWER 1 OF 17  CAPLUS  COPYRIGHT 2003 ACS on STN
AN   2003:717784  CAPLUS
DN   139:231487
TI   High flow compositions of compatibilized poly(arylene ether)-polyamide
     blends containing dendritic polyesters
IN   Adedeji, Adeyinka
PA   USA
SO   U.S. Pat. Appl. Publ., 8 pp.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.         KIND  DATE           APPLICATION NO.  DATE
     ---------------    ----  --------       ---------------  --------
PI   US 2003171503       A1   20030911       US 2002-683955   20020306
     WO 2003078526       A1   20030925       WO 2002-US24000  20020708
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
PRAI US 2002-683955    A    20020306
AB   A thermoplastic compn. comprises a compatibilized poly(arylene
     ether)/polyamide resin blend and a dendritic polyester resin.  A
     compatibilizer is a polycarboxylic acid, such as citric acid, and the
     compn. can further comprise an impact modifier, such as
     styrene-butadiene-styrene (SBS) block copolymer.  Thus, a polyoxyphenylene
     (47.0), a polyamide (Capron 1250) (41.3), SBS block copolymer (
     Vector 8508D) (10.0), citric acid (0.8%), and
     a dendritic polyester (Boltorn H 20) were extruded and pelletized.  The
     compn. contg. 4.0% of the dendritic polyester had a melt flow rate of
     16.33 (ASTM D1238) compared to 0.78 for a dendritic polyester-free blend,
     the rates being measured at the same conditions.

L4   ANSWER 2 OF 17  CAPLUS  COPYRIGHT 2003 ACS on STN
AN   2002:84321  CAPLUS
DN   136:147477
TI   Method and kit for measuring tartaric acid-resistant acid phosphatase
IN   Miyazaki, Shuichi; Igarashi, Makoto
PA   Yamasa Shoyu Co., Ltd., Japan
SO   Jpn. Kokai Tokkyo Koho, 7 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.         KIND  DATE           APPLICATION NO.  DATE
```

PI	JP 2002031640	A2	20020131	JP 2000-216167	20000717
PRAI	JP 2000-216167		20000717		

AB A method and a kit are provided for measuring tartaric acid-resistant acid phosphatase (TRAP) in a sample by an immunoassay. In this immunoassay, the antibody obtained by immunization using osteosarcoma cell-derived recombinant TRAP is used as an antibody, and the osteosarcoma cell-derived recombinant TRAP is used as a std. substance.

L4 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:609561 CAPLUS
DN 137:151095
TI Preparation of supercoiled plasmid DNA by culture of bacteria in a defined medium
IN Voss, Carsten
PA Plasmidfactory Gmbh & Co. Kg, Germany
SO Ger. Offen., 22 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10106493	A1	20020814	DE 2001-10106493	20010213
	WO 2002064752	A1	20020822	WO 2002-EP290	20020114

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI DE 2001-10106493 A 20010213

AB The present invention concerns a procedure for the prodn. of nucleic acids, esp. supercoiled DNA. The method involves cultivating a bacterial host carrying the plasmid to high cell densities in a batch process in a defined synthetic aq. medium that is free of complex components such as animal exts. The medium contains an org. carbon source, an inorg. nitrogen source, mineral salts, and an org. nitrogen compd. that supports bacterial metab., e.g. vitamins or amino acids. The purified nucleic acid, isolated from bacteria cells is suitable for use in gene therapy, cell therapy or genetic inoculation. Optimization expts. in which the effect of medium compn. and fermn. conditions on increasing the yield of the plasmid are described.

L4 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 1
AN 2002:689576 CAPLUS
DN 138:88727
TI Enhancement of citric acid production by immobilized and freely suspended Aspergillus niger using silicone oil
AU Ates, Selma; Dingil, Nesrin; Bayraktar, Emine; Mehmetoglu, Ulku
CS Faculty of Art and Science, Department of Chemistry, Gazi University, Teknikokullar, Ankara, 06500, Turk.
SO Process Biochemistry (Oxford, United Kingdom) (2002), 38(3), 433-436
CODEN: PBCHE5; ISSN: 1359-5113
PB Elsevier Science Ltd.
DT Journal
LA English
AB The use of silicone oil as an oxygen **vector** for increasing **citric acid** prodn. by free and immobilized Aspergillus niger conidiospores was studied. When silicone oil was used, citric acid concn. increased with respect to the control run in free and immobilized

systems 2.0 and 1.6 times, resp. The effect of potassium ferrocyanide [K4Fe(CN)6] on citric acid prodn. in a medium contg. air, oxygen and silicone oil was studied. When K4Fe(CN)6 was used with oxygen and silicone oil, citric acid concn. decreased significantly because of the conversion of ferrocyanide to ferricyanide. The reuse of immobilized A. niger conidiospores was investigated in citric acid prodn. medium contg. 2% (vol./vol.) silicone oil. Citric acid prodn. decreased on increasing the reuse no.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 17 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN
AN 2003:22710 SCISEARCH
GA The Genuine Article (R) Number: 622UL
TI Enhancement of citric acid production by immobilized and freely suspended Aspergillus niger using silicone oil
AU Ates S (Reprint); Dingil N; Bayraktar E; Mehmetoglu U
CS Gazi Univ, Fac Art & Sci, Dept Chem, TR-06500 Ankara, Turkey (Reprint); Ankara Univ, Fac Engn, Dept Chem Engn, TR-06100 Ankara, Turkey
CYA Turkey
SO PROCESS BIOCHEMISTRY, (NOV 2002) Vol. 38, No. 3, pp. 433-436.
Publisher: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND.
ISSN: 0032-9592.
DT Article; Journal
LA English
REC Reference Count: 30
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB The use of silicone oil as an oxygen **vector** for increasing **citric acid** production by free and immobilized Aspergillus niger conidiospores was studied. When silicone oil was used, citric acid concentration increased with respect to the control run in free and immobilized systems 2.0 and 1.6 times, respectively. The effect of potassium ferrocyanide [K4Fe(CN)(6)] on citric acid production in a medium containing air, oxygen and silicone oil was studied. When K4Fe(CN)(6) was used with oxygen and silicone oil, citric acid concentration decreased significantly because of the conversion of ferrocyanide to ferricyanide. The reuse of immobilized A. niger conidiospores was investigated in citric acid production medium containing 2% (v/v) silicone oil. Citric acid production decreased on increasing the reuse number. (C) 2002 Elsevier Science Ltd. All rights reserved.

L4 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:578309 CAPLUS
DN 136:101411
TI Plasmid profile and characterization on negative mutants for lactose and citrate metabolism derived from Leuconostoc mesenteroides
AU Sewaki, Tomomitsu; Tagawa, Yuji; Miyamoto, Taku
CS Fac. Agric., Okayama Univ., Okayama-shi, 700-8530, Japan
SO Miruku Saiensu (2001), 50(2), 49-54
CODEN: MISAFD; ISSN: 1343-0289
PB Nippon Rakuno Kagakkai
DT Journal
LA Japanese
AB Lactose- and citrate-neg. (Lac- and Cit-) mutants were isolated after the treatment of Leuconostoc mesenteroides strains 6-1-9 and OR-2 with acridine orange and examd. for their plasmid profiles and enzymic characteristics. Lac- mutants, designated 6-1-9-1 and 6-1-9-2 were deficient a 38 Mdal plasmid and they lost activities of the lactose-splitting enzyme (.beta.-galactosidase). On the other hand Cit- mutant (OR-2-1) missing a 15 Mdal plasmid lost the citrate permease activity, although it possessed less citrase activity.

L4 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:750280 CAPLUS
DN 133:307122
TI Alcaligenes cis-epoxysuccinic acid hydrolase genes, and use in D-(-)-Tartaric acid production
IN Asai, Yoko; Kobayashi, Tsuyoshi; Uchida, Koichi; Terasawa, Masato
PA Mitsubishi Chemical Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000295992	A2	20001024	JP 1999-105827	19990413
PRAI	JP 1999-105827		19990413		

AB Cis-epoxysuccinic acid hydrolase isolated from Alcaligenes, its genes, recombinant expression, and use in prodn. of D-(-)-Tartaric acid, are disclosed. Genes coding for .alpha. and .beta. subunits of cis-epoxysuccinic acid hydrolase were isolated from Alcaligenes MCI3611 strain. Hydrolysis of cis-epoxysuccinic acid to D-(-)-Tartaric acid was obsd. in E. coli transformed with the cloned genes.

L4 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 2
AN 2000:521129 CAPLUS
DN 133:206842
TI Enhancement of **citric acid** production by Aspergillus niger using n-dodecane as an oxygen-**vector**
AU Wang, Jianlong
CS State Key Joint Laboratory of Environment Simulation and Pollution Control, Department of Environmental Science and Engineering, Tsinghua University, Beijing, 100084, Peop. Rep. China
SO Process Biochemistry (Oxford) (2000), 35(10), 1079-1083
CODEN: PBCHE5; ISSN: 1359-5113
PB Elsevier Science Ireland Ltd.
DT Journal
LA English
AB Due to the significant oxygen requirement during citric acid prodn. and the relatively low soly. of oxygen in water, aeration is crit. The potential use of n-dodecane as an oxygen-**vector** for improvement of **citric acid** prodn. by Aspergillus niger was studied. The volumetric fraction of oxygen-vector has a great influence on the volumetric oxygen transfer coeff. kLa. With the addn. of an oxygen-vector to the fermn. medium with a final concn. of 5%, the kLa value reached a max. value (130 h-1), which is twice that of the control expt. The addn. of 5% (vol./vol.) n-dodecane enhanced citric acid accumulation, reduced residual sugar concn. and stimulated mycelial growth. Adding n-dodecane had no adverse effects on the cells of A. niger. The results of enzyme assays indicated that no significant differences were obsd. between the activity of citrate synthase of two kinds of mycelial cell-free exts.
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:156429 CAPLUS
DN 133:130432
TI A biofunctional assay to study pRL-CMV plasmid DNA formulation stability
AU Poxon, Scott W.; Hughes, Jeffrey A.
CS Department of Pharmaceutics, College of Pharmacy, University of Florida, Gainesville, FL, 32610, USA
SO PDA Journal of Pharmaceutical Science and Technology (1999), 53(6), 314-317
CODEN: JPHTEU; ISSN: 1076-397X
PB PDA, Inc.

DT Journal
LA English
AB The ability of a plasmid DNA formulation to code for a functional protein was assayed as a marker for plasmid DNA stability using a cotransfection method to measure transcription efficiency. This method shows increased sensitivity and reproducibility over single plasmid transfection methods. Method validation, by measuring DNA degrdn. rates, demonstrates that buffer choice may be of some importance in the pharmaceutical formulation of plasmid DNA. Degrdn. rates dependent on citrate buffer concn. were obsd. This cotransfection method has proven superior to std. agarose gel electrophoresis in quantifying subtle pRL-CMV plasmid DNA damage and could be used to help predict stability of a final plasmid DNA dosage form.
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1994:291318 CAPLUS
DN 120:291318
TI Carbon source-dependent inhibition of xyl operon expression of the Pseudomonas putida TOL plasmid
AU Holtel, Andreas; Marques, Silvia; Moehler, Isabel; Jakubzik, Ute; Timmis, Kenneth N.
CS Dep. Microbiol., GBF-Natl. Res. Cent. Biotechnol., Braunschweig, Germany
SO Journal of Bacteriology (1994), 176(6), 1773-6
CODEN: JOBAAY; ISSN: 0021-9193
DT Journal
LA English
AB TOL plasmid-encoded degrdn. of benzyl alc. by Pseudomonas putida is inhibited by glucose and other compds. related to the main carbohydrate metab. in Pseudomonas species. The authors report here that this effect is exerted at the level of expression of the xyl catabolic operons, and two xyl promoters, Pu and Ps, were identified as the primary targets of this inhibition. Xyl promoter activation was also inhibited by glucose in the heterologous Escherichia coli system, apparently not however by the classical mechanism of enteric catabolite repression.

L4 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1991:181893 CAPLUS
DN 114:181893
TI Characterization of a citrate-negative mutant of Leuconostoc mesenteroides subsp. mesenteroides: metabolic and plasmidic properties
AU Lin, J.; Schmitt, P.; Divies, C.
CS Dep. Microbiol. Biotechnol., Ec. Natl. Super. Biol. Appl. Nutr. Aliment., Dijon, F-21000, Fr.
SO Applied Microbiology and Biotechnology (1991), 34(5), 628-31
CODEN: AMBIDG; ISSN: 0175-7598
DT Journal
LA English
AB Comparison of the parental strain of the L. mesenteroides subsp. mesenteroides (19D) and its citrate-neg. mutant, which has lost a 22-kb plasmid, has confirmed the energetic role of citrate. Fermn. balance anal. showed that citrate led to a change in heterolactic fermn. from glucose. High levels of enzyme activity in both mutant and parental strains were found for NADH oxidase, lactate dehydrogenase, acetate kinase, alc. dehydrogenase, diacetyl reductase and acetoin reductase, although NADH oxidase, alc. dehydrogenase, diacetyl reductase, and acetoin reductase were partly repressed by citrate. All these enzymes studied were not plasmid-linked. In the parental strain, citrate lyase was induced by citrate. No citrate lyase activity was found in the citrate-neg. mutant grown in presence of citrate, but this does not provide evidence that citrate lyase is linked to the 22-kb plasmid.

L4 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1991:510283 CAPLUS

DN 115:110283
TI Instability of lactose and citrate metabolism of Leuconostoc strains
AU Fantuzzi, L.; Vescovo, M.; Bottazzi, V.
CS Ist. Microbiol., Univ. Cattol., Piacenza, 29100, Italy
SO Biotechnology Letters (1991), 13(6), 433-6
CODEN: BILED3; ISSN: 0141-5492
DT Journal
LA English
AB The instability of Lac+ and Cit+ phenotypes was investigated in Leuconostoc mesenteroides cremoris ATCC 19245 and in 4 strains of L. mesenteroides dextranicum. The 2 phenotypes were linked to a 14-Mdal and a 34-Mdal plasmid, resp., in L. mesenteroides cremoris ATCC 19245. In L. mesenteroides dextranicum, the character Lac+ was linked to a 28-Mdal plasmid, while the Cit+ phenotype was stable.

L4 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 3
AN 1989:495542 CAPLUS
DN 111:95542
TI Glucose as a substrate in recombinant strain fermentation technology. By-product formation, degradation and intracellular accumulation of recombinant protein
AU Rinas, Ursula; Kracke-Helm, Heinrich Andreas; Schuegerl, Karl
CS Inst. Biophys. Phys. Biochem., Univ. Regensburg, Regensburg, D-8400, Fed. Rep. Ger.
SO Applied Microbiology and Biotechnology (1989), 31(2), 163-7
CODEN: AMBIDG; ISSN: 0175-7598
DT Journal
LA English
AB Glucose supplements to complex growth medium of Escherichia coli affect the prodn. of a recombinant model protein under the control of a temp.-sensitive expression system. The bacterial Crabtree effect, which occurs in the presence of glucose under aerobic conditions, not only represses the formation of **citric acid** cycle enzymes, but also represses the formation of the **plasmid**-encoded product, even though the synthesis of this protein is under the control of the temp.-inducible lambda PR promoter/cI857 repressor expression system. When the recombinant E. coli is grown at a moderate temp. (35.degree.) with protein hydrolyzate and glucose as substrates, a biphasic growth and prodn. pattern is obsd. In the 1st phase, the cells grow with a high specific growth rate, utilizing glucose and forming glutamate as a byproduct. The intracellular level of recombinant protein is very low in this phase. Later, glutamate is consumed, indicating an active citric acid cycle. The degrdn. of glutamate is accompanied by the intracellular accumulation of high amts. of recombinant protein.

L4 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1989:113201 CAPLUS
DN 110:113201
TI L-Glutamic acid and L-proline, their recombinant manufacture with Corynebacterium and Brevibacterium
IN Katsumata, Ryoichi; Yokoi, Haruhiko; Kino, Kuniki
PA Kyowa Hakko Kogyo Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63119688	A2	19880524	JP 1986-265297	19861107
	JP 07121228	B4	19951225		
PRAI	JP 1986-265297		19861107		

AB Glutamic acid and proline are manufd. by cultivating recombinant Corynebacterium or Brevibacterium contg. the gene encoding citric acid

synthase. Plasmid pEgltA-1 contg. the synthase gene cloned from the chromosomal DNA of Escherichia coli was linked to plasmid pCG11, a vector for both Corynecbacterium and Brevibacterium, to form recombinant plasmid pEgltA-2. Corynebacterium glutamicum transformed with pEgltA-2 produced glutamic acid 31.2 mg/mL culture fluid.

L4 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1983:483242 CAPLUS
DN 99:83242
TI Bacterial-plant gene cloning shuttle vectors for genetic modification of plants
AU Kado, C. I.; Tait, R. C.
CS Dep. Plant Pathol., Univ. California, Davis, CA, 95616, USA
SO NATO ASI Series, Series A: Life Sciences (1983), 61(Genet. Eng. Eukaryotes), 103-10
CODEN: NALSDJ; ISSN: 0258-1213
DT Journal
LA English
AB A discussion of the construction of plasmid cloning vectors from Agrobacterium tumefaciens, which can potentially shuttle genes between Escherichia coli and plants, is presented. These include plasmid derivs. of pTAR and pSa. The pTAR **plasmids** contain the genetic determinants for the stereospecific catabolism of L-**tartaric acid** in Agrobacterium. Plasmid pCK2G, a pTAR deriv., contains the origin of replication of pTAR and the E. coli plasmid pBR322 and can be introduced into either E. coli or A. tumefaciens by transformation. Plasmid pTi and pCK2G are both compatible. DNA sequences present on both plasmids can be exchanged by homologous recombination. Thus, a pCK2G recombinant contg. a fragment of T-DNA is a useful cloning vector for plant genes. Plasmid pSa151-T utilizes the origin of replication of the S strain of the cauliflower mosaic virus genome in the PvuII site of pSa151 and can replicate in plant hosts.

L4 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1982:156615 CAPLUS
DN 96:156615
TI Genetic and molecular studies of the regulation of atypical citrate utilization and variable Vi antigen expression in enteric bacteria
AU Baron, L. S.; Kopecko, D. J.; McCowen, S. M.; Snellings, N. J.; Johnson, E. M.; Reid, W. C.; Life, C. A.
CS Dep. Bacterial Immunol., Walter Reed Army Inst. Res., Washington, DC, 20012, USA
SO Basic Life Sciences (1982), 19, 175-94
CODEN: BLFSBY; ISSN: 0090-5542
DT Journal
LA English
AB Atypical **citric acid** [77-92-9] utilization by Escherichia coli strains V414 and V517 was **plasmid**-encoded, by a 130-megadalton conjugative Cit+ plasmid, (pWR60) in V414 and by a 36-megadalton plasmid (pWR517-7) in V517. The Cit+ genes of pWR60, present on a 9-kilobase PstI fragment, were cloned in pBR325. Atypical citrate utilization apparently involved partial metab. of citrate at the cell surface, before or during uptake. Expression of atypical citrate utilization encoded by pWR60 or a recombinant (pWR61) appeared to be reversible. The genes viaA and viaB were necessary for Vi antigen formation by Salmonella and Citrobacter. Reversible expression of the Vi antigen by some C. freundii strains was controlled by the viaB locus, which also encoded the Vi antigen. S. typhi And E. coli K12 hybrid strains carrying the C. freundii viaB locus exhibited reversible Vi antigen expression, even in the absence of general recombination. The viaB locus of C. freundii was transferred to an F'lac plasmid in E. coli K12 strains WR2376 via phage Mu-mediated transposition.

L4 ANSWER 17 OF 17 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

AN 1980:87128 BIOSIS
DN PREV198019024626; BR19:24626
TI GENETIC CHARACTERISTICS OF **CITRIC-ACID** UTILIZING **PLASMID** COEXISTING WITH H-1 GROUP R **PLASMID** IN SALMONELLA-TYPHIMURIUM OF COW ORIGIN.
AU SATO G [Reprint author]; ISHIKURO N; OKA C; ASAKI M; HANZAWA Y
CS DEP VET MED HYG, OBIHIRO VET COLL, OBIHIRO, HOKKAIDO, JPN
SO Japanese Journal of Bacteriology, (1979) Vol. 34, No. 1, pp. 149.
Meeting Info.: 52ND MEETING OF THE JAPANESE SOCIETY FOR BACTERIOLOGY, HIRATSUKA CITY, JAPAN, APR. 4-6, 1979. JPN J BACTERIOL.
CODEN: NSKZAM. ISSN: 0021-4930.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
FS BR
LA JAPANESE

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